

GREEN TIER APPLICATION

APRIL 19, 2005



VERIDIAN
HOMES



Veridian Homes LLC-Green Tier Application

Tier I Application

Table of Contents

Divider 01	Application Form 4800-022
Divider 02	Facility Information Attachment
Divider 03	Application Attachments Section III- Scope of Participation Section IV-Enforcement Record Section V-Environmental Performance Section VI-Environmental Management System
Divider 04	Environmental Policy
Divider 05	Supplemental Attachments Wisconsin Energy Star Audit Veridian Homes Green Initiatives Publication Clear Waters Initiative Draft Charter Trade Contractor Sign-off Sheets

Green Tier Application

Form 4800-022 (8/04)

Page 1 of 2

Notice: Collection of this information is authorized under s. 299.83 Wis. Stats. Participation in Green Tier and completion of this form are voluntary. Personal information collected on this form, including such data as your name, address, phone number, etc., will be used in the implementation of Green Tier and will be made broadly available under the Green Tier program. Information will also be made accessible to requesters under Wisconsin's Public Records Law (ss. 19.32 - 19.39, Wis. Stats.). Applications must be considered complete by the Department of Natural Resources in order to be processed. For application instructions, see "Green Tier Application Instructions," publication number CO-501.

This application is a: ☒ **Tier 1 Participation Request** ☐ **Tier 2 Participation Request**

I. Applicant Information (add additional forms for each entity that is part of the applicant group)

Person or Entity Name		Title	
Veridian Homes LLC-Jeff N. Simon		Executive Vice President-Operations	
Street Address	City	State	ZIP Code
6801 South Towne Drive	Madison	WI	53713
Telephone Number	Fax Number	E-Mail Address	
(608) 226-3140	(608) 223-0443	jsimon@veridianhomes.com	

II. Facility Information (add additional forms for each facility or activity that is to be included in Green Tier)

Facility Name		County	
Veridian Homes LLC		Dane	
Street Address	City	State	ZIP Code
6801 South Towne Drive	Madison	WI	53713
Mailing Address	City	State	ZIP Code
6801 South Towne Drive	Madison	WI	53713

Please identify all Facility Identification numbers (FID #) that apply to the covered facility or activity

III. Scope of Green Tier Participation

Materials in support of this section should be labeled Attachment 1.

Please describe the discrete activities to be covered in the program, if the application is **not** for whole-facility participation in Green Tier.

IV. Enforcement Record

Materials in support of this section should be labeled Attachment 2. Eligibility requirements are established in s. 299.83 (3) and (5), Wis. Stats.

Has the applicant, managing operators of the applicant or any person with 25% or more ownership interest in the applicant:

Yes No

- ☐ ☒ a. Had a judgment of conviction entered against them for a criminal violation of an environmental regulation involving a covered facility or activity?
If yes, please provide the date(s) of conviction and the nature of the violation(s).
Applicants convicted of a criminal violation within 60 months before the date of application for Tier 1 and 120 months for Tier 2 that resulted in substantial harm to public health or the environment or that presented an imminent threat to public health or the environment are ineligible for the program.
- ☐ ☒ b. Had a civil judgment entered against them for a violation of an environmental regulation involving a covered facility or activity?
If yes, please provide the date(s) of the judgment and the nature of the violation(s).
Applicants with a civil judgment entered against them within 36 months before the date of application for Tier 1 and 60 months for Tier 2 that resulted in substantial harm to public health or the environment are ineligible for the program, unless the applicant requests a waiver of enforcement record requirements.
- ☐ ☒ c. Been referred to the Department of Justice for enforcement of an environmental regulation involving a covered facility or activity?
If yes, please provide the date(s) of referral and the nature of the violation(s).
Applicants referred to the Department of Justice within 24 months before the date of application for Tier 1 and Tier 2 are ineligible for the program, unless the applicant requests a waiver of enforcement record requirements.
- ☐ ☒ d. Been issued an environmental citation by the Department of Natural Resources involving a covered facility or activity?
If yes, please provide the date(s) of the citation and the nature of the violation(s).
Applicants issued an environmental citation within 24 months before the date of application for Tier 1 and Tier 2 are ineligible for the program, unless the applicant requests a waiver of enforcement record requirements.

Are you requesting a waiver from enforcement record requirements?

Yes No

- ☐ ☒ If yes, please attach a justification. Waivers may be granted in exceptional circumstances

Green Tier Application

Form 4800-022 (8/04)

Page 2 of 2

V. Environmental Performance

Please provide information on the following Tier 1 or Tier 2 activities. **Materials in support of this section should be labeled Attachment 3.** For definitions of environmental performance and superior environmental performance, refer to Application Instructions.

☒ Tier 1

- Baseline environmental performance report that addresses each covered facility or activity to be included in Green Tier. Within this report establish a baseline date against which future progress may be measured.
- Current environmental performance (measured against the baseline).
- Future plans for enhancing the environment.

☐ Tier 2

- Describe the applicants' record of superior environmental performance and the measures that it proposes to take to maintain and improve its superior environmental performance.

VI. Environmental Management System (EMS)

Materials in support of this section should be labeled Attachment 4.

Yes No

☐☒

a. Do you have an EMS certified to the International Organization for Standardization standard 14001?

☐☒

b. Do you have an EMS that is functionally equivalent as determined by the Department of Natural Resources?

If **no** to both questions, please proceed to next section if you are applying for Tier 1. Tier 2 applicants must have implemented an EMS to be eligible for the program.

If **yes** to either a. or b., please attach a copy of the following to this application:

- Third Party Certification
- Environmental Policy Statement
- Scope Statement
- Documented Objectives and Targets for the Facility or Activity

VII. Tier 1 Applicant Statement of Commitments

I commit to:

- implement, within one year of the date of this application, an EMS that is third party certified to the International Organization for Standardization or is functionally equivalent as determined by the Department of Natural Resources for each covered facility or activity under Green Tier.
- conduct annual EMS audits, with every 3rd audit performed by an outside environmental auditor approved by the Department of Natural Resources.
- submit to the Department of Natural Resources an annual report on the EMS audit that is in compliance with s.299.83 (6m) (a) and progress towards meeting objectives related to improved environmental performance for aspects regulated under chs. 29 to 31, 160, and 280 to 299, unregulated environmental aspects, or voluntary actions to restore, enhance, or preserve natural resources.

I commit to the above statements and certify that all information provided is true and correct under penalty of law.

Signature of Applicant

JEFF N. SIMON

Date Signed

4/21/05

VIII. Tier 2 Applicant Statement of Commitments

I commit to:

- conduct annual EMS audits performed by an outside environmental auditor approved by the Department of Natural Resources.
- conduct or have another person conduct an annual audit of compliance with environmental requirements that are applicable to the covered facilities and activities eligible under the program.
- submit to the Department of Natural Resources an annual report on the EMS audit and the environmental requirements compliance audit and reporting the results in compliance with 299.83 (6m) a. Wis. Stats.

I commit to the above statements and certify that all information provided is true and correct under penalty of law.

Signature of Applicant

Date Signed

IX. For Department Use Only

Date Received	Initials of Reviewer	Status	Date Returned to Applicant for Additional Information	Date Denied	Date Approved



Veridian Homes LLC-Green Tier Application

Application

Section II-Facility Information

Veridian Homes LLC, with headquarters located at 6801 South Towne Drive, is applying for Green Tier level I participation.

As a builder of single and multi family homes, Veridian operations are not currently covered by a single or multi Facility Identification Numbers (FIDs) at the Veridian headquarters at 6801 South Towne Drive.

This Green Tier application is therefore submitted to identify the participation of the organization known as Veridian Homes LLC. The scope of Veridian participation includes all construction operation and land development activities of the organization at the 6801 South Towne Drive location as well as activities at each construction site. The scope also includes the activities of organizations contracted by Veridian while they are conducting work at each Veridian managed sites.

Veridian, in the process of developing land and of building homes, is involved in activities that are regulated by state, county, and local regulation. Veridian Homes has identified aspects of its land development and home building operations and business processes that have significant impacts on the environment. Veridian is currently implementing an ISO 14001-equivalent Environmental Management System (EMS) to set objectives and targets to minimize or eliminate outcomes from the environmental impacts identified.



Veridian Homes LLC-Green Tier Application

Section III-Scope of Participation

ATTACHMENT 1

Veridian Homes is seeking Green Tier participation at the Tier level I. As such Veridian is organizing and implementing an Environmental Management System (EMS) that involves all aspects of land development and home building at any Veridian site. Veridian participation also includes business aspects related to its home building partners, herein called trade contractors, who provide specific building services. These services include but are not limited to: land development services, excavation services, concrete foundation services, framing and finishing services, plumbing, heating and electrical services, concrete flatwork, and landscaping services.

Veridian proposes to incorporate all of these contracted trade activities at Veridian sites within the scope of the EMS through contractual agreements, building/service scopes of work, and learning/training outreach. These Veridian trade contractors will not be required to implement an EMS within their own organization but will be encouraged to understand the Veridian program and implement contractually required and voluntary measures for environmental improvement.

Veridian will include significant impacts to all media including waste material, water resources, energy resources, and air emissions associated with the aspects of its land development and building operations activities.

Veridian participation will include activities associated with land development, including but not limited to land identification, land procurement, interim land management, infrastructure installation and home building activities.

Veridian will train contractors regarding the Veridian EMS, contractual requirements, and voluntary environmental improvements they can implement.

Outside of the EMS Scope

Veridian participation will not include an extension of the EMS to state, county, city, or municipal entities which regulate Veridian or interface with it on land development or building activities. Veridian does not exercise "control" of these entities in a manner that is conducive to EMS management by Veridian, so they are therefore out of scope by definition. Likewise, Veridian cannot control the activities of contract purchasers of finished lots, most notably commercial and multi-family, so they are therefore out of scope by definition.

Veridian will not require trade contractors to adopt an EMS and will not implement a certification process for trade contractors.



Veridian Homes LLC-Green Tier Application

Section IV-Enforcement Record

ATTACHMENT 2

Regulatory Status:

Veridian Homes has not had any criminal or civil environmental judgments during the required time period of the previous 60 months from the date of this application.

Veridian Homes has not been referred to the Department of Justice for enforcement of any environmental regulation.

Veridian Homes has not had "citations" issued to the organization within the last 24 months.

Other issues and actions:

Veridian has received local notifications regarding erosion and sediment releases from building sites in the past 24 months. These incidents involved erosion of soil from building sites that were released to streets and storm water conveyances during heavy rainfall episodes. The incidents were responded to immediately and corrected. Although some incidents resulted in a fine, there were no incidents of record where Veridian was called to appear in court as a result of the incident or for failure to act upon notification of a problem.

Veridian has taken steps in the past to provide improved response to such incidents however; storm water and erosion control are significant environmental impacts to which the EMS will be directly applicable. Veridian is setting objectives and targets within the EMS that specifically respond to the root causes of release episodes and to the incidence of other material which could enter the waterways of Wisconsin.

Veridian is implementing targets through its EMS to correct the underlying causes of these incidents and working to form a Charter group that will collectively improve the function and administration of erosion prevention tools for home builders and land developers. Veridian feels that these changes will be transferable to other builders, developers and trade contractors.



Veridian Homes LLC-Green Tier Application

Section V-Environmental Performance

ATTACHMENT 3

Tier 1 Scope of "Covered Facilities"

Veridian baseline performance will be set utilizing calendar 2004 performance and practice data. The facility covered is located at 6801 South Towne Drive; however the practices will extend to each active construction site. The control scope of the EMS includes land development, building/construction practices of Veridian, and the building/construction services provided to Veridian under specific contracts.

The EMS will be limited to the business activities of Veridian. Trade contractor services will conform to the Veridian EMS through contracts issued specifically for Veridian job sites. Veridian will use training and auditing to support the trade contractor execution of the Veridian EMS.

The scope of this application **does not include** any requirement by trade contractors to establish Green Tier qualifying (ISO 14001 or equivalent) EMS programs within their own organization.

Baseline Assessment

The baseline includes business aspects and functions related to air, water and waste impacts resulting from the construction of single and multi family homes. The baseline activities include land development, excavation, foundation, backfill, framing, finishing, flatwork, and landscaping including any activities associated with the listed construction activities. The baseline also includes current processes in place to schedule the work, deliveries and trade contractor activities. It also includes elements of current site review, auditing and contractual conditions that apply to trade contractors. Veridian does have several elements of an EMS that are being incorporated and modified to meet the requirements of Green Tier level I.



Veridian Homes LLC-Green Tier Application

Significant Impacts Identified to Date:

1. Trade and Veridian impacts during construction

Veridian previously identified key points within the building process where accountability and process review (auditing) will prevent ongoing erosion, waste and run-off problems. By making each visiting trade contractor responsible for actions that prevent potential impacts through up-front specifications and contracts, Veridian will prevent site problems overall. Veridian is targeting problems at sites where one trade contractor may affect the next contractor on site in a negative manner.

A first step made by Veridian is to implement "Trade Contractor Sign-Off Sheets." The sheets identify specific trade responsibilities pertaining to materials management, site access, erosion and waste that each contractor must complete before their work will be authorized and paid. The sign-off system includes non-conformance (root cause prevention) and corrective action. Veridian site construction managers and/or community builders provide final sign-off as a verification of completed corrections.

Contractor sign-off sheets:

Attached are sign-off sheets that signify several of the steps in the Veridian home building process. Veridian is currently amending those sheets to include additional control, minimization or elimination steps that will require the contractor or construction manager to certify that required measures regarding waste management/minimization, storm water management, erosion control, and air pollution have been successfully avoided or controlled. Each sheet identifies specific activities that are required for conformance to the EMS to be determined as a "work completed."

If a non-conformance is identified and corrective action is required, it must be completed prior to the work being authorized for payment.

Objective 2005

- ✓ Verify through observation and auditing that the checklists or sign-off sheets adequately capture non-conformances and construction aspects that lead to the identified significant impact.
- ✓ Target the management review of audit findings at even-flow production meetings.
- ✓ Review all trade contracts annually to assure responsibilities are clearly identified.
- ✓ Target the review of all trade engineering, performance and delivery specifications at least annually to assure correct instructions are provided to each trade.

The objective is to compile a list of sign-off non-conformances identifying, at a minimum, the trade contractor responsible, the non-conformance by description, or weight, or severity, or some weighted scale, and any actual environmental impact that occurred. Information such as the correction activity and length of time to correct may be tracked. The objective is to utilize this information to identify continuous systematic improvements by classifying



Veridian Homes LLC-Green Tier Application

trade service providers, identifying needs for trade contractor training, and to eliminate trade providers who do not comply.

2. Recycling, Waste Management and Energy Efficiency

Veridian has identified construction waste management as a significant environmental impact prior to this application. To identify and quantify the impact, Veridian procured the assistance of WasteCap Wisconsin.

WasteCap initially provided services that identified the various types of waste being generated during the building process and located potential recycling options for Veridian. After identifying major waste stream components, Veridian began requiring separation and recycling of cardboard and wood generated at its building sites.

The baseline information shows the following:

Material	One Year* Ton	Per house Tons	One year* Vol. (yd3)	Per house Vol. (yd3)
Trash		1.33	17,064.0	26.66
Cardboard	211.6	0.33	8,464.0	13.23
Wood	738.8		4,493.62	7.72
			13,407.62	20.95
	52.69%	52.69	44.00%	44.00%

*period Nov. 03-Oct. 04 based on 640 homes constructed-WasteCap 3-22-05.

The baseline shows that Veridian achieved a total recycling rate of approximately 50 percent on a weight basis for the 12 months beginning November 2003 by weight (44 percent by volume) thus diverting over 2000 tons of wood from Wisconsin landfills in 2004 and beneficially using the wood as landscape mulch. This was accomplished through segregation of wood and cardboard out of general trash to reuse or recycle.

Veridian built over 640 homes in 2004, which saved enough energy to light over 70 homes. (For every 400 new homes built to Wisconsin Energy Star and Green Built certification translates into ten-year greenhouse gas savings that include 41,409 therms \$30,642 1 homeowner savings at .74/therm; over 484,817 pounds of carbon dioxide not released into the atmosphere; and over 414 pounds of nitrous oxide not released into the air.

In 2004, Veridian participated with the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy Building America Program. A Building America home was designed and constructed by Veridian and succeeded in reaching the minimum program goal of 40% energy-efficiency by actually being 43% more energy-efficient. The goals of the project included a significant reduction in the amount of lumber used in construction, along



Veridian Homes LLC-Green Tier Application

with increased efficiencies in the delivery of heating and cooling. The home also featured a solar water heating system, rain garden, and new energy-efficient products such as insulation and windows. In recognition of this home's extreme energy-efficiency, The National Association of Home Builders awarded Veridian Homes with the Green Project of the Year Award.

Veridian Homes has been recognized nationally for its efforts to build green. In 2004 and 2005, the U.S. Environmental Protection Agency named Veridian Homes as an Energy Star Partner of the Year for its outstanding contribution to reducing greenhouse gas emissions by building energy-efficient homes. And, in 2004, in recognition of its innovative environmental stewardship efforts, Veridian received the Wisconsin Business Friend of the Environment award from the Wisconsin Environmental Working Group.

Objective 2005

During 2005, Veridian will continue to identify the components of the general waste stream in order to determine fluctuations in the consistency of the waste stream and significant components that represent an opportunity for reuse or recycling.

From 2005 through 2007, Veridian will perform a systematic review of purchasing methods in order to search for opportunities to minimize incoming waste associated with material packaging, shipping, handling, spoilage, or obsolescence.

- √ During 2005, Veridian will begin reporting results from the recently implemented reuse and recycling programs for drywall scraps.
- √ During 2005, Veridian will investigate the feasibility of reusing or recycling vinyl siding scraps.
- √ Within the 2005 and 2006 construction seasons, Veridian will implement a concrete spoils recycling program to capture excess and wash-out concrete spoils for concrete aggregate.
- √ During 2005, Veridian will begin to identify opportunities for insulation scraps, banding, roofing shingle scraps, and ceramic/brick and block recycling.
- √ During 2005 through 2007 construction seasons, Veridian will identify opportunities to convert wood debris into suitable mulch, cover or erosion control materials.

The target for 2005 is to improve the overall reuse and recycling rate by 10 percent. This means that the 50 percent achievements (approximate) in base year 2004 will be increased on average to 60 percent in 2005 compared to base year 2004.



Veridian Homes LLC-Green Tier Application

Objectives 2006 and Beyond

- ✓ Additional objectives for 2006 and 2007 will be to decrease overall trash generation pre square foot of home built, decrease the incidence of sidewalk and curb damage, and identify opportunities to support Sustainable Development (SD) suppliers and promote small business opportunities related to recycling and reuse. Targets for these items will be determined after the feasibility studies have been completed.

3. Energy Consumption

Energy consumption during construction primarily consists of the direct energy used to build the home and the consumption of raw materials that have taken energy both for manufacturing and for transportation to the work site.

The methods and materials Veridian uses to construct the home determine the energy use capability of the home for decades. The capability is defined as the physical construction of the home using energy rated materials, fixtures, appliances and assembly methods.

Veridian used a variety of energy efficient materials and construction methods during base year 2004.

During 2004, a third party Wisconsin Energy Star audit was performed to determine the capability of current construction and methods Veridian utilizes. The results of that audit are attached and form the 2004 baseline value.

Veridian has determined that the homes it builds will continuously improve in energy efficiency while remaining sound economically and providing a healthy environment for the occupant.

Veridian will be using a number of techniques to target improvement of the energy rating in 2005 to 0.05 cfm/sq. ft or less.

Veridian will implement energy efficient construction techniques and utilize technologically sound energy efficient devices to achieve this goal. The improvements may include but are not limited to lighting, heating, water and heating, geothermal techniques, composite materials, solar power components, and passive heating/lighting techniques.

Veridian will also begin to publish instructional materials that will direct and assist the home owner in utilizing the energy efficient capacity of the home by the way they live in the home and within the community.



Veridian Homes LLC-Green Tier Application

Veridian will publish at least one document in its outreach program during 2005 that will identify the relevance of the efforts Veridian accomplishes during home building pertinent to environmental performance improvement. This document will be targeted toward the prospective homeowner.

Veridian's objective for 2006-2007 will be to create new documents or modify existing ones that the home owner can use to understand the energy efficient construction of their home by knowing the particular materials, appliances, and techniques that constitute their new living environment.

In 2006-2007, Veridian will explore methods that can be used to measure and capture value for energy savings homeowners can affect by their purchase, procurement, transportation, and building technique modifications.

4 Charter Formation

In 2004, Veridian participated in discussions regarding the formation of a Charter Agreement under Wisconsin Act 276. This Charter group currently consists of Wisconsin Department of Natural Resources (WDNR) representatives, Dane County representatives, other local government representatives (see the attached draft charter) and Veridian Homes, LLC.

The objective of Veridian's participation in the Charter Agreement process was to bring Veridian and several layers of governmental entities together to determine if voluntary means can achieve greater storm water and erosion impact prevention than the use of regulatory means alone. The Charter Agreement is also intended to limit layering and conflicting regulation and provide the opportunity to streamline approval of site specific or general controls that achieve greater prevention than prescriptive measures.

- ✓ Target number one for 2005 is to finalize the Charter Agreement language and to begin implementation of the methods that will achieve greater sediment release prevention from building sites.

Target number two is to implement an internal site review and site auditing system. The intent of that system is to provide a timely look at the site for regulators (posted or supplied data) while implementing a true day-to-day site management program. The Veridian internal reviews will focus on identifying and correcting non-conforming activities in all aspects of the home building process that can lead to soil erosion or run-off.



Veridian Homes LLC-Green Tier Application

- ✓ Target number three relates to establishment of an early consultation process with the developer by the WDNR and other affected governmental agencies. This step is being added to the normal review process in order to provide early identification, through coordinated review, of fragile areas at a potential development. Early identification and discussion of fragile areas will provide a smoother process with and enhanced environmental protection.
- ✓ Target number four for 2005 is the creation of an annual report that will outline the accomplishments of the previous year. Calendar 2005 will set the base year, therefore targets will be set initially in 2006.
- ✓ Target number five for 2005 is the collaboration between Veridian and affected governmental agencies to develop and implement innovative erosion management practices on several demonstration developments.



Veridian Homes LLC-Green Tier Application

Section VI-Environmental Management System

ATTACHMENT 4

Veridian does not have an established Environmental Management System (EMS) that conforms to ISO 14001 or is certified to ISO 14001 standards.

Veridian is currently undergoing "Aspect and Impact" analysis of its operations to clearly and systematically identify significant environmental impacts. Veridian is completing the analysis, planning, and implementation steps of its EMS in parallel with setting objectives and targets based upon experience and the business need.

Attached is the Veridian environmental policy that (1) reflects the commitment to environmental improvement and (2) that conforms to the impacts of its business on the environment.

The Veridian target is to establish an ISO 14001 equivalent EMS by the end of calendar 2005 and to establish a comprehensive set of objectives and targets for calendar 2006.

For 2005, Veridian intends to implement and measure those items identified in Section V as environmental performance improvement objectives.



Veridian Homes LLC-Green Tier Application

Veridian Homes Environmental Policy

Veridian Homes, LLC is a non-disturbance to non-disturbance builder of high quality Wisconsin Energy Star certified homes.

Incorporated into our vision of “DREAM BUILD LIVE” is an environmental commitment that inspires the team to continuously improve environmental performance within each step of the building process. Veridian believes that the environmental quality and care can be perpetuated by the homeowner as they live and continue to care for the land that has become their home. Veridian strives to build neighborhoods and homes that support these sustainable concepts.

Veridian will demonstrate their commitment to compliance by implementing an Environmental Management System (EMS) that assures all regulatory commitments are known on an ongoing basis. The cornerstone of the system will be a close relationship with regulatory agencies that assures Veridian understands the intent of the regulations and all methods available for compliant operations.

The regulatory relationship will supplement Veridian relationships with customers, neighbors, and affected parties. By thoroughly understanding the aspects of the Veridian business process that may cause environmental impacts we see the opportunities for elimination of the impact through minimization of waste from the building process, and prevention of sedimentation and erosion incidents. The relationship strategy and EMS will interconnect environmental responsibility, ethical behavior, and pollution prevention within all aspects of their construction operations.

Veridian will continue to value the land it builds upon and surrounding land. It will sculpt the land in a way that preserves natural features, identifies fragile areas, and designs healthy opportunities for its neighborhood.

This policy will be brought to life every day through the building activities of Veridian, their contractors, and their vendors. It will be communicated to our associates, affected regulatory bodies, and interested parties in our communities and neighborhoods.

Veridian understands that what we do today impacts tomorrows' communities and the environment. By understanding the impact of our business upon the environment, Veridian can set measurable performance goals that directly relate to an improved living environment for our communities and our customers while conserving precious building resources and setting the stage for our customers to be environmental stewards in their day-to-day living experience.